ZoneDirector™ 1000

Enterprise-Class Smart Wireless LAN Controller

The First "IT Lite" Full-featured Smart Wireless LAN Controller

The Ruckus Wireless ZoneDirector 1000 is the first centrally managed Smart Wireless LAN (WLAN) system developed specifically for small-to-medium enterprises (SMEs) and hot zone operators.

With simplicity and ease of use in mind, the Ruckus ZoneDirector 1000 is purpose-built to address the gap between standalone, feature-deficient access points (APs) that must be individually managed and the costly, complex high-end enterprise systems that are overkill for most small business environments.

The Ruckus ZoneDirector is ideal for small businesses that require a robust and secure WLAN that can be easily deployed, centrally managed and automatically tuned.

The ZoneDirector 1000 is also perfect for operators who want to offer business class hot spot services such as voice over Wi-Fi, IP-based video, secure enterprise access and tiered Wi-Fi services in venues such as hotels, airports, schools and public buildings.

The ZoneDirector 1000 integrates the Ruckus Smart/OS application engine that delivers advanced features such as smart wireless meshing, hot spot authentication, elegant guest networking and dynamic Wi-Fi security.

The Ruckus ZoneDirector 1000 can be deployed and operated by non-wireless experts and installed quickly and easily. Any organization with limited IT staff and budget can create a robust and secure multimedia WLAN in a matter of minutes.

The Ruckus ZoneDirector easily integrates with network, security and authentication infrastructure already in place and is easily configured through a point-and-click web-based wizard. Ruckus ZoneFlex APs automatically discover and are configured by the ZoneDirector.

Redundant and secure, the Ruckus ZoneDirector provides WLAN-wide network, security, RF and location management within a single, easy-to-use and affordable WLAN system.

BENEFITS

Simple to use, simple to manage

Centralized management, quick setup, IT-Lite and automatic, real-time optimization of entire WLAN

Smart Mesh Networking streamlines costly and complex deployment

Integrated Smart Mesh Networking technology automates deployment, eliminates the need to run Ethernet cable to every Smart Wi-Fi access point

IT Lite deployment in 5 minutes or less

A web-based configuration wizard lets any computer user configure an entire WLAN in minutes. Ruckus ZoneFlex APs auto-discover the ZoneDirector. Centralized management and automatic, real-time optimization of entire WLAN

Distributed forwarding architecture

Maximizes data throughput by sending all data traffi c directly from the access points to the wired network

Flexible deployment options

The ZoneDirector interacts with existing network and security infrastructure and provides dynamic RF management across APs to eliminate AP placement issues

Triple play ready

The smart antenna array and precision Quality of Service (QoS) support within the ZoneFlex APs enable the reliable transport of voice, video and data traffic

Automatic user security

Dynamic PSK eliminates the requirement to configure and update individual PC client devices with unique encryption keys. Dynamic VLAN assignment seamlessly extends existing security policies to the WLAN

Complete integration

Combines network management, dynamic RF management, location management and AP control within a low-cost solution

Advanced WLAN features and functions

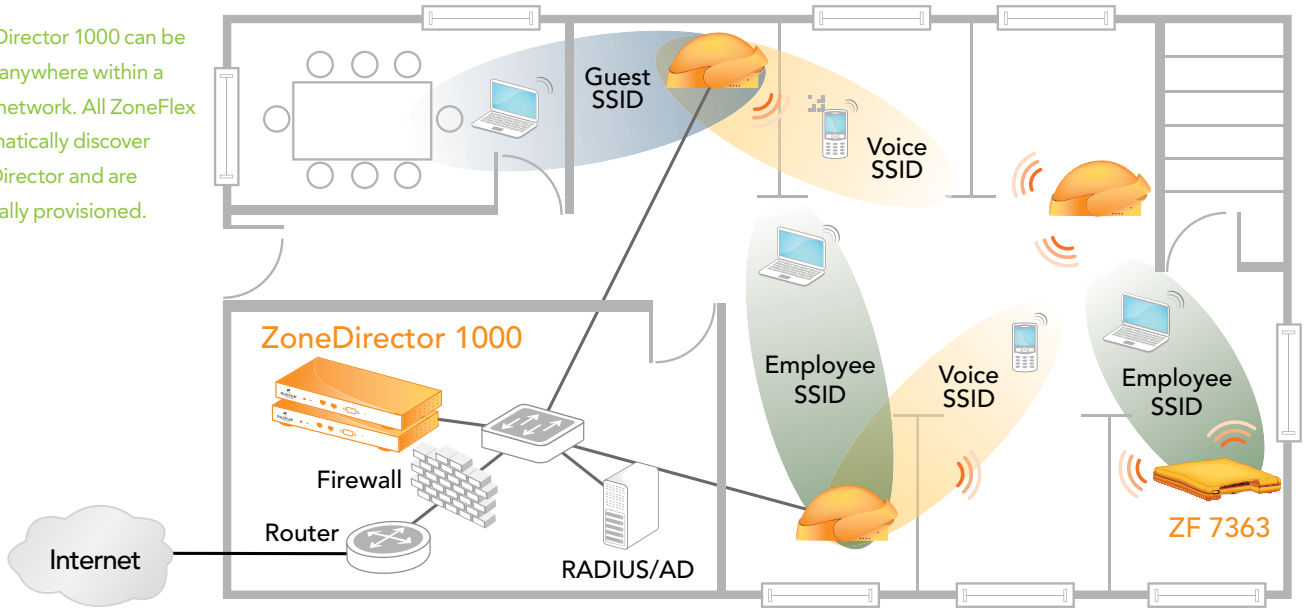
Advanced wireless networking features include rogue AP detection, band steering, airtime fairness, WLAN groupings, role-based user policies, and client thresholds per AP

Ruckus™ WIRELESS

ZoneDirector 1000

Centralized Enterprise Smart WLAN Controller

The ZoneDirector 1000 can be deployed anywhere within a Layer 2/3 network. All ZoneFlex APs automatically discover the ZoneDirector and are automatically provisioned.



Simple to Deploy

The Ruckus ZoneDirector integrates seamlessly with existing switches, firewalls, authentication servers and other network infrastructure. The ZoneDirector can be placed within any Layer 2/3 network. Ruckus ZoneFlex APs (whether wired or mesh APs using Smart Mesh Networking) automatically discover the Ruckus ZoneDirector, self configure and become instantly manageable.

Simple to Manage

Once up and running, the ZoneDirector automatically manages the ZoneFlex network of APs — automatically adjusting transmit power levels and RF channel assignments as needed to prevent adjacent APs from interfering and enable redundant coverage in the event of an AP failure. Configuration changes can easily be applied to multiple APs or the entire system simultaneously. A customizable dashboard provides instant access to a variety of client and network information and events, and a real time heat map displays AP locations and signal coverage, as well as your Ruckus Smart Mesh Networking topology.

ZoneDirector Smart WLAN systems integrate a unique performance utility from Ruckus called SpeedFlex™. Ruckus SpeedFlex allows administrators to locally or remotely determine client Wi-Fi performance over the wireless LAN. With SpeedFlex, administrators can now better plan, troubleshoot, monitor and measure WLAN performance, eliminating the need to use Internet-based speed tools that often provide inaccurate results of the local Wi-Fi environment.

Simple to Secure

The ZoneDirector 1000 provides innovative new techniques that simplify and automate Wi-Fi security. In addition to enterprise-class 802.1x support and dynamic VLAN assignment capabilities, the ZoneDirector 1000 supports a patent-pending Dynamic Pre-Shared Key (PSK) capability that streamlines WLAN security.

HARDWARE FEATURES

- Thin 1U rackmountable footprint
- Easy discovery from PC using UPnP
- N+1 redundancy
- Manage multiple locations and ZoneDirectors with FlexMaster
- Two 1000 Mbps ports for full redundancy
- Lifetime warranty coverage

SOFTWARE FEATURES

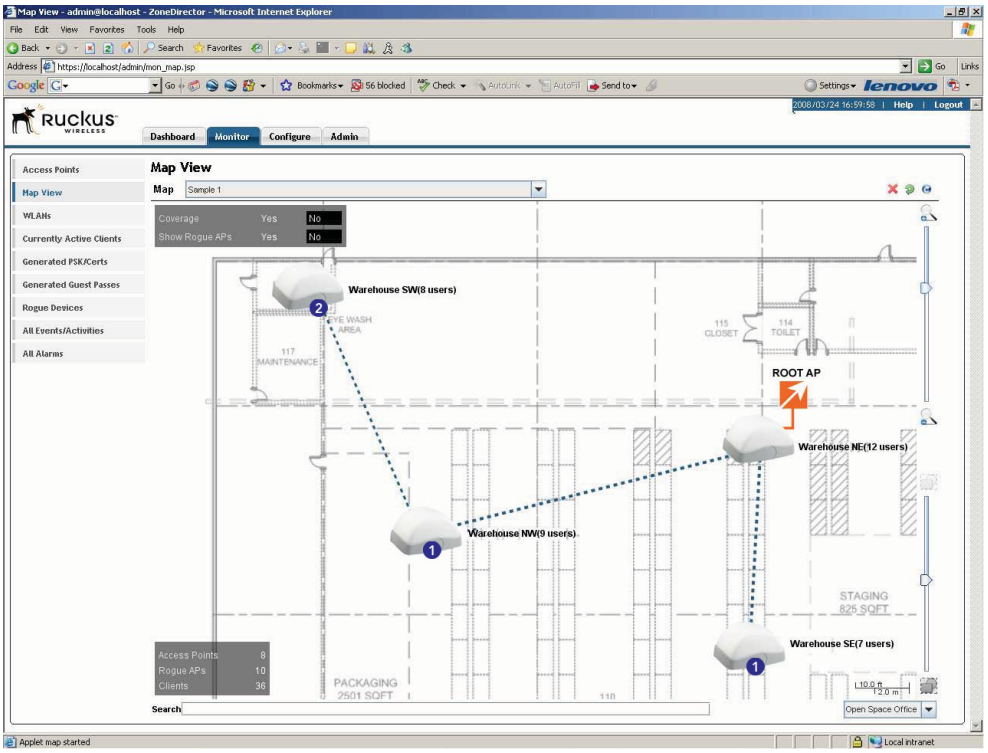
- Central control and configuration of up to 50 ZoneFlex APs
- Support for 32 WLANs per AP
- Integrated DHCP server
- Easy-to-use setup wizard
- Ultra-intuitive GUI
- Smart Mesh Networking control and monitoring
- Real-time client admission control
- Customizable dashboard
- Dynamic RF channel and power management
- Band steering*
- Airtime fairness
- Integrated captive portal
- Native ActiveDirectory/RADIUS/LDAP support
- Local authentication database
- Dynamic VLAN assignment
- Guest networking and Terms of Use
- Dynamic generation of unique Pre-Shared Keys
- Rogue AP detection and graphical map view
- Aeroscout location services support
- Hot spot authentication using WISPr
- Performance monitoring and statistics
- SNMP

*for ZoneFlex 7962, 7762 and 7363 dual-band access points

ZoneDirector 1000

Centralized Enterprise Smart WLAN Controller

The ZoneDirector 1000 provides a detail map view that lets administrators quickly see the Wi-Fi network topology for all ZoneFlex Smart Wi-Fi access points.



First-time users plug their computers into the LAN and specify a URL that directs them to a captive web portal for a one-time authentication. After successful authentication, the ZoneDirector automatically configures the client system with the designated SSID and a dynamically-generated encryption key. The key is bound to the client, and can be removed upon expiration when the user or the user's device is no longer trusted.

The Ruckus ZoneDirector centralizes authentication and authorization decisions for all APs, providing secure admission control across the WLAN. It works with any backend authentication database such as RADIUS and ActiveDirectory/LDAP and also comes with an internal authentication database. Additionally, clients can be dynamically assigned to a VLAN based on their RADIUS attributes.

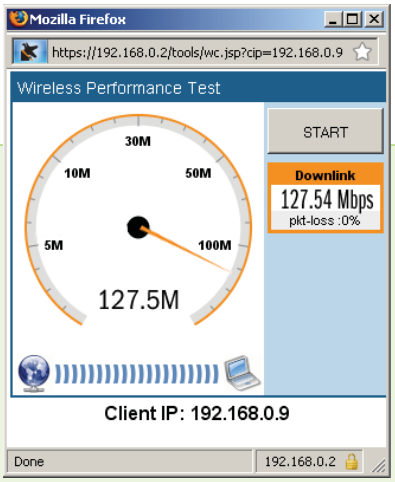
Avoid Interference, Maximize Performance and Extend Reach with BeamFlex

Ruckus BeamFlex™, a patented Wi-Fi beam-steering technology, ensures predictable performance for multimedia traffic applications and extends range to eliminate Wi-Fi deadspots. With the ZoneDirector, the value of BeamFlex is extended beyond a single access point to the system-wide WLAN and smart wireless meshing.

The ZoneDirector automatically controls the channels assignments and transmit power levels of all ZoneFlex Smart Wi-Fi APs. And with BeamFlex, the ZoneFlex system continuously picks the best path for every packet, to both clients outside the network and mesh APs inside the network, automatically avoiding interference to guarantee the highest quality of service.

Smart Mesh Networking Increases Flexibility, Reduces Costs

Ruckus Smart Mesh Networking enables self-organizing and self-healing WLAN deployment. It eliminates the need to run Ethernet cables to every AP, allowing administrators to simply plug in ZoneFlex APs to any power source and walk away. All configuration and management is delivered through the ZoneDirector Smart WLAN controller. Smart meshing uses patented Smart Wi-Fi technology to extend range and control Wi-Fi signals to minimize internodal hops that degrade performance and automatically adapt Wi-Fi connections between nodes to maintain ultra high reliability.



SpeedFlex™ is a unique wireless performance test tool integrated within the ZoneFlex™ family of centralized controllers that measures the Wi-Fi throughput of associated wireless LAN clients.

Specifications

PHYSICAL CHARACTERISTICS

POWER	• External power adapter • Input: 110–240V AC • Output: 12V DC, 1A
PHYSICAL SIZE	• 25cm(L), 15.93cm(W), 3.86cm(H)
WEIGHT	• 2.2 lbs (1 kilogram)
ETHERNET PORTS	• 2 ports, auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45
LED DISPLAY	• Power/status
ENVIRONMENTAL CONDITIONS	• Operating Temperature: 32°F (0°C)–122°F (50°C) • Operating humidity: 15%–95% non-condensing

MANAGEMENT

CONFIGURATION	• Web user interface, FlexMaster
STATISTICS	• LAN, wireless and associated stations (available via UI)
AUTO AP SOFTWARE UPDATES	• Supported
CAPTIVE PORTAL	• Supported
GUEST ACCOUNTS	• Supported
VLAN SUPPORT	• 802.1Q (per BSSID)
DHCP SERVER	• Supported
AP DISCOVERY & CONTROL	• Layer-2 or Layer-3
WLANs (BSSIDs)	• Up to 32
RADIUS ACCOUNTING	• Supported
ACCESS LISTS (ACLs)	• Layer-2 (MAC address based ACL) • Layer-3 (IP address based ACL) • L2 client isolation
WIRELESS INTRUSION DETECTION (WIDS)	• Rogue AP detection • DoS attack prevention • Password guessing protection • Rate limiting

SECURITY

WIRELESS SECURITY	• WEP, WPA-TKIP, WPA2-AES, 802.11i
AUTHENTICATION	• 802.1X, local database • External AAA servers: ActiveDirectory/RADIUS/LDAP
LOCAL AUTHENTICATION	• 1000 user entries

MULTIMEDIA AND QUALITY OF SERVICE

VoIP TUNNELING	• Supported
802.11e	• Supported
SOFTWARE QUEUES	• Per traffic type, per client
AUTO-CLASSIFICATION	• Heuristics
RATE LIMITING	• Supported

CERTIFICATIONS

COUNTRIES	• U.S., Europe, Canada, Australia, Chile, Colombia, Hong Kong, India, Malaysia, Philippines, Saudi Arabia, Singapore, Thailand, UAE

PERFORMANCE AND SUPPORTED CONFIGURATIONS

NUMBER OF MANAGED APs	• Up to 50
CONCURRENT STATIONS	• Up to 1250

RECOMMENDED APs

	ZoneFlex 7363 - 802.11n Dual-band Smart Wi-Fi AP
	ZoneFlex 7343 - 802.11n Single-band Smart Wi-Fi AP
	ZoneFlex 2942 - 802.11g Smart Wi-Fi AP
	ZoneFlex 2741 - 802.11g Outdoor Smart Wi-Fi AP

Product Ordering Information

Model	Description
ZoneDirector 1000 Smart WLAN Controllers	
901-1006-XX00	ZoneDirector 1006 supporting up to 6 ZoneFlex APs
901-1012-XX00	ZoneDirector 1012 supporting up to 12 ZoneFlex APs
901-1025-XX00	ZoneDirector 1025 supporting up to 25 ZoneFlex APs
901-1050-XX00	ZoneDirector 1050 supporting up to 50 ZoneFlex APs
ZoneFlex Smart Wi-Fi Access Points	
901-7363-XX01	Smart Wi-Fi 802.11n dual-band (2.4GHz/5GHz) AP with 802.3af PoE support
901-7343-XX01	Smart Wi-Fi 802.11n single-band (2.4GHz) AP with 802.3af PoE support
901-2942-XX01	Smart Wi-Fi 802.11g AP with 802.3af PoE support
901-2741-XX01	Smart Wi-Fi 802.11g outdoor AP with 802.3af PoE support

PLEASE NOTE: When ordering you must specify the destination region by indicating -US, -EU, -UK, -UN, -AU, -UU or -IN instead of XX.

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Ruckus™ WIRELESS

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